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# SECTION VIII

## RECOMMENDATIONS

### VIII.1 PHYSICAL CHARACTERISTICS

#### SOILS

- ✓ Unstable landforms or headwalls should be added to the TPCC withdrawn classification and to the Riparian Reserve Network. This meets several ACS objectives (#3, 4, and 5) and provides protection buffers adjacent to flowing streams to increase the filtering effect of the current forest stand and provide clean, cool waters downstream at critical times in low flow conditions.

#### EROSION

- ✓ Avoid disturbing Tyee and Flournoy formation headwalls that are steeper than 65%. Protect such sites with approximately 125-150 foot leave strips.
- ✓ Work with private timber companies to erosion proof and close dirt spurs created or reopened in the Camas and Upper East Fork Coquille subwatersheds.
- ✓ Work with Bonneville Power Company to erosion proof (and/or close) dirt spurs used for service and maintenance of the utility corridor.
- ✓ Effect road decommissioning in accordance with TMO's. Roads with one or more stream crossings should receive a higher priority for decommissioning than those without stream crossings.
- ✓ Provide rock weir structures or woody debris placement in the Camas, Upper East Fork and Brummit subwatersheds ,as appropriate, to restore in-channel sediment storage in connection with aquatic habitat enhancement projects.
- ✓ Replace worn and improperly functioning culverts, with priority given to Yankee Run and Steel Creek systems. Install wood or rock weirs at culvert inlets and outlets, as appropriate, to trap and store sediment and control headcutting.
- ✓ Seed and or mulch areas of landslide disturbance found on the 1997 aerial photos determined to be contributing sediment through surface erosion.

## VIII.2 AQUATIC ECOSYSTEM

### WATER QUALITY

- ✓ Prepare a 303(d) Water Quality Management Plan and assessment for temperature on BLM-administered lands.
- ✓ Complete a stream channel inventory on BLM-controlled portions of Yankee Run, Elk, Steel, China, Camas and Dead Horse Creeks. Prepare plans to restore streams undergoing accelerated bank erosion.
- ✓ Work with the Coquille Watershed Association and willing landowners to promote establishment of a vegetative canopy along portions of the East Fork Coquille River (see Appendix A - Map A.16).
- ✓ Work with the Coquille Watershed Association and willing landowners to identify and limit sediment sources.

### AQUATIC HABITAT

- ✓ Conduct aquatic habitat inventories in the following areas:
  - East Fork Coquille mainstem;
  - Lausch Creek,
  - Camas Creek in T28S, R09W, Sections 22-24, and
  - Lost Creek in T28S, R09W, Section 3 and above the forks in T28S, R09W, Section 2.
- ✓ Remove twin culverts under the 28-11-17.1 (closed) road in Yankee Run Creek.
- ✓ Replace both culverts under the 28-11-20.0 road in Yankee Run Creek to rectify outfall and velocity barriers.
- ✓ Redress manmade barrier at the 28-9-32.1 road crossing on South Fork Camas Creek.
- ✓ Redesign/replace culvert at the mouth of China Creek to correct outfall and velocity barrier. This culvert (under the CBWR) passes adult anadromous salmonids at typical winter flows, but presents a barrier to juvenile salmonids, non-salmonids, herptiles, and invertebrates. Stream temperature monitoring data indicate that summer temperatures in the East Fork Coquille River near China Creek approach 70°F, but those in China Creek typically remain below 60°F. The stream crossing should be redesigned to maintain access for spawning adult salmonids and provide access to thermal refugia in China Creek during summer base-flows for aquatic organisms, including juvenile salmonids.
- ✓ Excellent opportunities and good access for instream placement of LWD exist on BLM-managed lands in:
  - Elk Creek (T28S, R11W, Section 23),

- South Fork Elk Creek (T28S, R11W, Section 35),
- China Creek (T28S, R10W, Section 5),
- Hantz Creek (T28S, R11W, Section 11), and
- Steel Creek (T28S, R11W, Section 1).
- Yankee Run Creek (T28S, R11W, Section 17).

Such projects would address LWD and/or Pool Complexity deficiencies noted in Appendix H (Tables H.1, H.4, H.5 and H.10), and would benefit both anadromous and resident fish. Similar opportunities exist on resident fish-bearing portions of:

- South Fork Camas Creek (T28S, R09W, Section 29), and
  - China Creek Tributary A (in T28S, R10W, Section 5).
- ✓ Other opportunities for instream placement of LWD exist on BLM-managed lands in Weekly Creek (T28S, R11W, Sections 31 & 32) and the Weekly Creek tributary in T28S, R11W, Section 31. These reaches are difficult to access, but restoration could be accomplished using skyline or helicopter in conjunction with harvest of adjacent units. Such projects would address LWD and/or Pool Complexity deficiencies noted in Appendix H (Table H.3), and would benefit both anadromous and resident fish.
- ✓ Many opportunities exist for instream placement of LWD on non-federal lands. Projects could be coordinated through the Coquille Watershed Association and would be subject to landowner approval.

## VIII.3 TERRESTRIAL AND RIPARIAN ECOSYSTEM

### VEGETATION

- ✓ FOI identified 1,268 acres as hardwood, and 32 acres as brushfield conversion opportunities (see Appendix A - Map A.20). These stands will require a systematic field survey to determine whether they meet acceptable tree/acre stocking. Specific concerns could better be addressed in site-level analysis.
- ✓ Alder conversion should be undertaken in the following areas:
- West Fork Brummit Creek (in T28S, R10W, Section 3, T27S, R10W, Sections 21, 22, & 27);
  - Yankee Run Creek (in T28S, R11W, Section 17);
  - China Creek (in T28S, R10W, Section 5);
  - South Fork Camas Creek (in T28S, R09W, Section 29);
  - Dead Horse Creek (in T28S, R09W, Section 5);
  - East Fork Brummit Creek tributaries (in T27S, R09W, Section 29);
  - Camas Creek (in T28S, R09W, Section 21); and
  - East Fork Coquille River mainstem (in T28S, R09W, Sections 9, 11, 12, & 13).

## POTENTIAL DENSITY MANAGEMENT AREAS WITHIN LSR

- ✓ Analytic results are summarized in Table VIII.1 below and displayed on Map A.25 (in Appendix A). Individual unit prescriptions, logging systems, and final unit boundaries will be addressed through a site-specific NEPA process.

**TABLE VIII.1**  
**Density Management Acres by Category**

Category 1 (Release)	Category 2 (Conversion)	Combination Category 1&2	Category 3 (Density Management)
529	445	403	2,195

## SPECIAL HABITATS

- ✓ Maintain integrity of special habitats such as seeps, springs, wetlands, and rocky habitats.
- ✓ Provide forage opportunities for wildlife where appropriate, consider seeding harvest units with grasses and forbs for big game forage pursuant to the District's Native Seed Policy.

## KEY HABITAT COMPONENTS

### Snags

- ✓ On matrix lands, decrease the time it would take to meet snag density goals by managing for >40% population potential through snag creation in green tree retention areas and deferred harvest units. Forty percent population potential equates to approximately two hard snags/acre. Snags should represent a variety of decay classes, topographic positions, seral stages, and distributions (i.e., large and small clumps and singly) and need to be provided through time.
- ✓ On reserve land allocations, actively strive to meet snag density goals by creating snags in areas currently deficient (particularly in Riparian Reserves). Forested reserve areas should be managed for 100% population potential, which equates to approximately six hard snags/acre. Snags should represent a variety of decay classes, topographic positions, seral stages, and distributions (i.e., large and small clumps and singly) and need to be provided through time.
- ✓ During pre-commercial thinning treatments, consider creating one small snag per acre in areas dominated by early and mid-seral stands.

### Down Logs

- ✓ On Matrix lands, decrease the time it would take to meet down log retention goals by creating down log habitat in areas not yet scheduled for harvest. Salvage of down logs in GFMA land will be pursuant to District policy, as stated in the RMP (USDI 1995a: 53) and in Instruction Memorandum OR-120-96-05.

- ✓ In upland and riparian reserve lands, actively strive to provide down log levels within the range of natural variability for the Oregon Coast Range as noted in Table V.2. Down logs should represent a variety of decay classes, topographic positions, and orientations and need to be provided through time. See the LSR Assessment for Southwest Oregon (USDA and USDI 1998) for additional guidance on down log habitat in Reserve areas.

## **SPECIES OF MANAGEMENT CONCERN**

### **Wildlife Species and Habitat**

- ✓ Minimize construction of additional permanent roads.
- ✓ Consider requirements of the Migratory Bird Treaty Act and additional policy or guidance for all activities.

### **Threatened and Endangered Species**

- ✓ Conduct surveys for NSO and marbled murrelets in the LSR to determine if presence and reproductive status are meeting LSR/NWFP objectives.
- ✓ Continue surveys for Bald Eagles, particularly along the mainstem.

### **BLM Sensitive Species**

- ✓ Survey the watershed to acquire information on distribution and abundance of special status species and their essential habitats.
- ✓ Continue surveys of Brewster Rock, China Wall and other cliffs/rock complexes for peregrine falcon occupancy.
- ✓ Provide roosting opportunities for bats; where appropriate, install bat boxes on BLM-controlled bridges to provide additional roosting habitat for bats.

### **Survey and Manage/Protection Buffer Species**

- ✓ Specific management actions will vary depending on species, but in general will involve management of key habitat features. Table VIII.2 presents recommendations for each species group or species.

**Table VIII.2**  
**Management Actions for Survey and Manage/Protection Buffer Species**

MANAGEMENT ACTION	SPECIES GROUPS WHICH BENEFIT
Manage known sites to maintain desired habitat conditions	All species groups
Conduct reserve surveys	All species groups
Maintain/enhance coarse woody debris in all decay classes	fungi, amphibians, bryophytes, mollusks, vascular plants, arthropods
Minimize soil compaction	fungi, mollusks, amphibians, bryophytes, vascular plants, arthropods
Snags maintenance/creation	lichens, bats, arthropods
Reduce the intensity of slash fires	fungi, mollusks, amphibians, arthropods
Retain green trees in patches and as individual trees	All species groups
Retain up to 20% of existing hardwoods (trees and older shrubs) within harvest units	mollusks, lichens, bryophytes, arthropods
Develop forest gaps in density management areas (½ acre)	lichens, bryophytes

## NON-NATIVE PESTS

- ✓ Eliminate exotic fish species from fire ponds.

### **Port-Orford-cedar root rot (*Phytophthora lateralis*)**

- ✓ Continue to prohibit bough cutting. (This policy has been in effect since October 1993.)
- ✓ For areas that appear to be disease free and have a POC stand component (>5%):
  - Close or gate roads to restrict access during wet weather.
  - Wash vehicles and equipment prior to operating in uninfected areas.
  - Time projects for drier seasons of the year.
- ✓ For open roads on BLM-administered lands, sanitize roadsides by removing green POC and Pacific yew (also a host tree) within 25 ft. slope distance from the road edge uphill and 30 ft. slope distance downhill (50 ft. at stream crossings).
- ✓ Cooperate with the USFS and OSU to test POC trees that appear resistant to PL; the most resistant trees should be placed in a seed orchard for propagation and eventual out-planting.

### ***Monitoring***

- ✓ Low Risk Sites should be surveyed using aerial photos or infrared imagery to detect the spread of PL from High Risk Sites along sanitized roads and harvest units. This survey should be conducted ≈ 5 years from now, when new photography or imagery becomes available.
- ✓ The success of POC sanitization should be evaluated to see if PL spread outside of the sanitized area. This should occur at 3 and 6 years after completion of the related action.

### **Noxious Weeds**

Management actions are included in the Noxious Weed Strategy for Oregon/Washington (USDI 1994) and the Draft *Invasive Weed Strategy for Coos Bay District BLM, February 1998*. In particular note the following actions:

- ✓ Perform periodic (<5 years) inventories to detect new locations or potentially new weed introductions.
- ✓ Use a variety of treatments (manual/mechanical, biological control, chemical, etc.) to control invasive species at specific locations. These treatments should be based on infestation size and species.
- ✓ Develop contract stipulations and standard practices to minimize the spread of noxious weeds such as; washing vehicles/equipment prior to entry, active removal and using weed-free materials.
- ✓ Re-vegetate all bare soil following disturbance by using native species when available, or a non-native species (such as annual ryegrass) which will lead to a native species outcome.
- ✓ Obtain rock from uncontaminated sources.
- ✓ Develop and maintain a watershed-wide agreement with adjacent landowners which will lead to a combined ownership treatment plan.

## **VIII.4 HUMAN USES**

### **RECREATION**

#### **Road Closures and Trail Opportunities**

- ✓ Many opportunities exist for non-motorized trail development, including the following:

- ***Brewster Trail (Dora to Sitkum) ≈ 6 miles***

The CBWR was constructed over much of the old Brewster Trail, however, fragments of the trail still remain. For example, the CBWR was constructed through Brewster Canyon, while the trail traversed the ridge to the north. Trail segments may offer an opportunity for reconstruction of an historic trail connecting Dora and Sitkum. The Brewster Trail



project would further District partnerships with Coos County Parks and Oregon State Parks, as well as provide historic and cultural interpretive opportunities.

For planning purposes, this particular portion of the Brewster trail is divided into three sections. These are:

**Steel Creek to Upper Bill's Creek (= 3 miles)**

This portion of the trail would start at Steel Creek Spur Road (28-11-1.0 B) and follow the south side of Steel Creek to the 27-10-29.1 road in upper Bill's Creek.

**Upper Bill's Creek to Brewster Rock Road (= 1.5 miles)**

Rock outcrops, as well as evidence of the old Brewster trail, highlight this section. The trail would connect the 27-10-29.0 road to the Brewster Rock Road (27-10-20).

Proposed trail development must be consistent with the values for which the China Wall ACEC was designated.

**Brewster Rock Road to Maria Jackson State Park (= 1.5 miles)**

The final section of trail links the two previous sections with Maria Jackson State Park. If access rights are granted to the public, the trail would utilize the Brewster Rock Road (27-10-20) and the abandoned Brewster Lookout Road (27-10-10). The old Brewster Lookout site also could be incorporated into the trail system.

**- Lost Creek Loops**

A number of unimproved, closed, and gravel roads in the Lost Creek/Knepper Creek/Tioga Ridge area could be tied together to provide trail opportunities. One potential loop includes Lost Creek Road (28-9-9.0) to BLM road 28-9-2.1 to Tioga Ridge Road (28-8-20.0) and back to Lost Creek Road via Harry's Road (28-9-12.2). Knepper Creek Road (28-9-12.1) and BLM road 28-9-11.1 offer shorter loops within the previously mentioned one. Use of these routes is contingent upon gaining public access from private landowners. The District could sign and promote these opportunities as is, providing non-motorized recreational access is secured for jointly-managed roads.

**- Skeeter Camp Cabin to Tioga Creek**

In the late 1970s and early 1980s, recreation planners from the Coos Bay and Roseburg Districts collaborated on a proposal to construct a long loop trail which would connect Tioga Creek with the old cabin site. The proposal could also include linking with the Doerner Fir (which had not been discovered at the time of the loop proposal).

**Improvements to Existing Recreation Sites**

**- Doerner Fir Trail**

The Doerner Fir Trail could use several improvements, including: providing for a small picnic area, installing an informational kiosk, creating a "guided walk" brochure and constructing a small structure to protect the tree from damage. It is recommended the Resource Area collaborate with the Roseburg District to improve signing to the trailhead from the east.

**- *Burnt Mountain Recreation Site***

Burnt Mountain Recreation Site could be improved to better serve the recreating public.

Recommended projects include: designating and leveling camp sites, installing fire rings and picnic tables, and developing a potable water source. A loop trail for recreationists to utilize during their stay could enhance the site. A loop trail could be developed by utilizing the existing short trail or connecting the old jeep trail that heads east from the site to the old Skeeter Camp jeep road. Access rights with private owners would be required for the latter alternative.

**New Recreation Sites****- *Lost Creek Falls***

Lost Creek Falls, located in T28S, R9W, Section 2, was used by local recreationists until the private landowner harvested timber around the falls in 1970. Prior to timber harvest, the District had proposed acquiring the land around Lost Creek Falls. The second growth has grown enough to make the site attractive for recreational purposes again. The District could reconsider acquiring the land around the falls as a stand-alone recreation site. Developing a short spur trail could enhance the Lost Creek Loops mentioned above.

**COMMERCIAL****Potential Timber Harvest Areas Within Matrix**

- ✓ Analytic results are presented in Appendix I. Table I.1 details potential units in GFMA while Table I.2 does likewise for units in CONN blocks.

**Transportation System**

- ✓ The TMO process identified ≈71.8 miles of road which could be closed through “Jobs-in-the-Woods” programs or in conjunction with timber sales, whichever is applicable. The TMO’s for individual roads to be closed are located in Appendix J. See the TMO data dictionary for terminology and definitions. A summary of the mileage, categorized by type of closure and purpose, is provided in Table VIII.3.

**Table VIII.3**  
**Method, Purpose, and Miles of Roads Recommended for Closure**

CLOSURE METHOD	PURPOSE			TOTAL MILES
	WILDLIFE (ONLY)	WILDLIFE + ACS	WILDLIFE + POC	
Gate Closure	0.00	0.57	3.19	<b>3.76</b>
Perm. Decommission	29.68	32.14	0.00	<b>61.82</b>
Self Decommission	0.60	0.20	0.00	<b>0.80</b>
Full Decommission	3.58	1.83	0.00	<b>5.41</b>
<b>TOTAL</b>	<b>33.86</b>	<b>34.74</b>	<b>3.19</b>	<b>71.79</b>

Installation of physical barriers on these 71.8 miles will result in a BLM open road density of 2.64 mi./mi<sup>2</sup>. Several un-numbered spur roads also are available for closure and their mileage is not reflected in Table VIII.3.

Some roads recommended for closure are subject to reciprocal right-of-way agreements. Prior to any change in road status, consultation with the permittee is necessary in accordance with IM OR-95-87.

- ✓ The China Creek Road system is a major concern. China Creek has particularly high value spawning habitat. In addition, the drainage does not exhibit symptoms of Port-Orford-cedar root rot disease. It is recommended that water dips be constructed to reduce surface runoff, and a gate be installed at the junction with the CBWR to help prevent introduction of the disease.

#### ***Culvert Repair or Replacement***

- ✓ Cursory review of the roads listed in Table VIII.4 has identified potential culvert replacement needs. A thorough culvert inventory needs to be conducted on these roads. Additional culvert surveys should be done along roads in proximity to riparian areas. Replace culverts and repair outlet erosion through funding opportunities such as the "Jobs-in-the Woods" program or upcoming timber sales.

#### ***Road Maintenance***

- ✓ The roads listed in Table VIII.5 are recommended for road drainage and surface improvements.

**Table VIII.4**  
**Roads Recommended for Culvert Replacement**

ROAD NUMBER	MILES	ROAD NUMBER	MILES	ROAD NUMBER	MILES
27-09-21.0 A-C	4.60	28-09-20.0 D-E	2.59	28-11-17.3	1.50
27-10-21.2 A-B	2.50	28-10-10.2	5.90	28-11-20.0 A-B	2.10
28-09- 8.0 A,B,C1	1.90	28-10-12.0 C-F	4.74	28-11-29.0 C-E	2.50
28-09-11.1 A,C	2.40	28-10-25.0	1.30	28-11-30.2	0.30
28-09-15.0	1.00	28-11-12.0 A-B	1.47	29-11-05.1 A	0.53

**TABLE VIII.5**  
**Roads Recommended for Maintenance**

ROAD NUMBER	MILES	ROAD NUMBER	MILES	ROAD NUMBER	MILES
28-09-8.1 C-D	2.00	28-10-5.1 A	0.67	28-11-26.0 A-C	2.62
28-10-5.0 A	0.32	28-10-5.2 A	0.80		

## VIII.5 RIPARIAN RESERVE EVALUATION

Based on the analysis presented in Section VII, and the professional judgement of wildlife, fisheries, botany, hydrology, and soils specialists, there are opportunities to modify the interim Riparian Reserve boundaries on some intermittent streams in accordance with the Aquatic Conservation Strategy. The team recognizes that the analysis area encompasses diverse geomorphic features and habitats, and that the distributions of the species of concern within the analysis area, listed in Table VII.,1 are not mapped or completely understood. Therefore, any modifications of interim Riparian Reserve boundaries must be analyzed at the site level and tailored to the specific features and biota of each site. To this end, the following recommendations are intended to guide the interdisciplinary team in subsequent site-level analysis and planning. It should be noted that each provides a single resource perspective, and the entire suite should be considered in the decision-making process.

- ✓ Riparian Reserves on areas subject to mass wasting or shallow-rapid debris flows (see Appendix A - Maps A.26b through A.31b), extremely steep soil hazard (see Appendix A - Map A.10), and geologically sensitive soils should be wide enough to protect the aquatic system from accelerated rates of landslides and sedimentation. The following is an adaptation of the ecological protection width needs outlined in Table V-14 of FEMAT (1993). The intent is to provide debris to a stream channel that is consistent with natural ecological processes and functions. Subwatershed-specific recommendations follow.

**- Brewster Canyon**

This subwatershed is slightly impacted by harvest removal, and surface erosion is of concern, particularly on the private lands within the area. Regeneration type harvests within Section 17 of T28S, R9W; Sections 14, 15, 17 and 21 of T28S, R10W; and T27S, R11W, Sections 1 and 13 may incur accelerated surface erosion. All other sections are within the LSR, and no reductions are anticipated.

The geology of the subwatershed is different between East and West ends. The subwatershed includes the largest of the ancient landslides within the analysis area. Reductions to 50' could preserve the stability of stream margins in T28S, R9W, Section 17, T28S, R10W, Sections 14, 17, 21; Section 13, the west side of Section 15 and the east side of Section 1 in T27 S, R11W. No reductions below 100' should be proposed within T28S, R10W, Section 14, the east side of Section 15 or the west side of T27S, R11W, Section 1.

**- Brummit Creek**

This subwatershed is not heavily impacted by harvest removal, and surface erosion is negligible from such activity. No Matrix land use allocation exists within this area, thus no regeneration harvest is expected to occur. Thinnings of stands up to age 80 should have no-cut buffers adjacent to stream channels.

**- Camas Creek**

This subwatershed is not heavily impacted by harvest removal and surface erosion is negligible from such activity. Within T28S, R9W, all sections with the exception of Section 17 are in LSR. The widths in Section 17 should be at least 50'.

For those reserves in T28S, R10W, the slope of the land increases dramatically, and some areas with surface erosion potential are noted on the MSLE model output (see Appendix A - Map A-28a). The reserve width could be modified to 50' in Sections 23 and 25, but there are few opportunities for Riparian Reserve reduction in the remaining sections.

**- Elk Creek**

This subwatershed is not heavily impacted by harvest removal, and surface erosion is negligible from such activity. The Matrix lands in T28S, R10W, Section 18, could have reductions of the Riparian Reserves to 125', based on the weak rock and steep slopes present. The northeast portion of Section 19 would also require such widths however the rest of the section and Sections 20 and 21 could be reduced to 75' widths. Slopes are steeper in Section 30 and may require 150' widths. The majority of sections in T28S, R11W can endure reductions to 75', but for Sections 34 and 35 widths could be kept to 150'. Streams in T29S, R11W, require at least 75' buffers.

**- Lower East Fork Coquille**

This subwatershed is not heavily impacted by harvest removal, and surface erosion is negligible from such activity. Width reductions are not recommended for lands in T27S, R10W due to the LSR designation of the land base. In T28S, R11W and T29S, R11W,

Section 5, widths could be reduced to 60' on lands with less than 30% slopes and to 150' where slopes exceed 70%. The varied nature of this subwatershed makes on-site recommendations critical for stability issues.

**- Upper East Fork Coquille**

This subwatershed is slightly impacted by harvest removal, and surface erosion is of concern from such activity. The upper sections located in T27S, R9W, are very different with respect to risk of landslide failures than other sections. In Section 25, widths could be reduced to 150'. This area has a high probability of failure under the ISE model (see Appendix A - Map A.31b), many TPCC withdrawals for rock outcroppings (see Appendix A - Map A.32), and thin steep soils. In Section 26 and 35, the interim width could be reduced to 50'. Retain 150' adjacent to streams in Section 34.

In T28S, R8W, streams in Sections 5, 7, and 17 need only 50' feet of riparian reserve width. In the upper headwall areas of Section 19, 100' should be maintained.

All sections within T28S, R9W, could have the interim width reduced to 50'.

- ✓ Although trees in Riparian Reserves provide wildlife benefits, Riparian Reserve trees should not be used to fulfill the green-tree requirement for an adjacent harvest unit.
- ✓ Seeps/springs/wetlands - ensure these special habitats are included within Riparian Reserves and that the reserve widths are sufficient to maintain characteristics of the site (e.g., shading, cool water, sediments, stable substrates, similar flow patterns/timing, maintenance of riparian vegetation, etc.).
- ✓ Rocky habitats - when rocky habitats occur within Riparian Reserves, ensure that Reserve widths are sufficient to maintain the characteristics of the site (e.g., temperature, humidity). Interim Riparian Reserve widths should not be reduced where such reductions would isolate TPCC withdrawal areas.
- ✓ Riparian Reserves should generally be a minimum of ½ site-potential tree height in order to accommodate home ranges of many small mammals, amphibians, and birds.
- ✓ To maintain LWD dynamics, Riparian Reserves should be at least 100' wide on each side of intermittent streams, with the following exceptions.
  - Where a ridge line exists within 100' of a stream, in which case the ridge line may be used to delineate the Riparian Reserve boundary, and;
  - Where discontinuous/disjunct stream channels preclude the possibility of downstream conveyance of LWD, in which case an appropriate site-specific prescription could be developed to maintain the characteristics of the site.
- ✓ To maintain water quality, retain a vegetative filter strip of 25' to 100', depending on slope steepness and surface roughness (USDA 1980).

- ✓ The 14 species listed under “late-successional” in Table VII.1 are terrestrial and occur within the outer half of the interim Reserve width. Impacts to these species will be greater through loss of habitat and changes in microclimate. Therefore, presence of these species should be determined prior to management actions that reduce Riparian Reserve widths.
- ✓ Reductions in interim widths of “high value” Riparian Reserves may pose a higher risk of adverse ecological impacts. Therefore, management activities in these areas will require careful analysis. “High value” reserves include the following:
  - Reserves containing forests > 120 years of age (offering incipient old-growth habitat).
  - Reserves which offer connectivity to other reserves, particularly if they connect across ridges to adjacent drainages (see Appendix A - Map A.22), and, reserves which contain contiguous mid- and late-successional habitat (providing connectivity and refugia for less-mobile species).
  - Reserves currently uninterrupted by culverts or road crossings (facilitate connectivity).
  - Reserves with high amounts of down log or snag habitat.
- ✓ Modification of interim Riparian Reserve boundaries must be tracked in a GIS database.